

Cost Function Regression Coefficients

Coach from "Coach Costs" worksheet

Rail from "Rail Fares" worksheet

Air from "AirNetwork.xls" "Air Pass Fare Regression" worksheet

For all Flow by mode combinations

D = Direction, B=Both

MinCost = lower threshold of fare (if used)

Funct, 1 = linear

DistPar, NiCsPar, TimePar, CnstCost, ExpDist = Passenger Fare regression coefficients, assume freight costs

NCHRP Rpt #388 Appendix F -- source for 1st cut \$/mile freight rates. Air Freight loosely based on Horizon intrastate air freight rates

NiCsPar =1, to pass through UTN[1] network charges (including node-specific constants/terminal handling costs)

functions create 1-way fares (50% of round trip fare)

AirPassenger Airport-specific constants, added to UTN[1] Road Station Connector link charges for the respective airports

Freight (truck, rail, air) terminal handling costs, added to UTN[1] Terminal connector link charge

PrivAuto assumes \$0.06/mile, \$15/hour (except no time cost for commuting flow 1, and Biz trips, flows 8-9, at workauto rates)

WorkAuto for biz trips assumes \$0.10/mile, \$18.80/hour (flows 8-9)

WorkAuto for freight trips assumes \$0/mile (included in freight rate), \$16.50/hour (flows 5-7, 10-11)

Assumed PersTrips Value of Time: 15.00 \$/hr/pers

Assumed Comm Driver wage: 16.50 \$/hr/pers

Assumed BizTrips wage: 18.80 \$/hr/pers

25% factor for schedule delay (all transit modes wait link)

75% factor for time in-veh on business

UTF[6]

LINK INDEPENDENT COST FUNCTIONS

STATE blank blank if ZnSt=blank			\$/mile		\$/min						Notes
Flow	Mode	ZnSt Dir	MinCost.	1=linear	Funct	DistPar.	NiCsPar.	TimePar	CnstCor	ExpDist.	
1	1			0	1	0.06	1	0	0	0	PrivAuto, commute
2	1			0	1	0.06	1	0	0	0	PrivAuto, shopping
3	1			0	1	0.06	1	0	0	0	PrivAuto, rec/other
4	1			0	1	0.06	1	0	0	0	PrivAuto, vfr
8	1			0	1	0.10	1	0.3133	0	0	PrivAuto, services (for rail/coach/AirPass)
9	1			0	1	0.10	1	0.3133	0	0	PrivAuto, business promo (for rail/coach/AirPass)
5	2			0	1	0.10	1	0.2750	0	0	Work drive, freight
6	2			0	1	0.10	1	0.275	0	0	
7	2			0	1	0.10	1	0.275	0	0	
8	2			0	1	0.10	1	0.3133	0	0	Work drive, biz trips (services/biz promo)
9	2			0	1	0.10	1	0.3133	0	0	
10	2			0	1	0.10	1	0.275	0	0	Work drive, Ext Truck Trips
11	2			0	1	0.10	1	0.275	0	0	
3	3			5	1	0.0874	1	0	5.5310	0	Coach passenger travel (No difference in business/passenger fares)
4	3			5	1	0.0874	1	0	5.5310	0	
8	3			5	1	0.0874	1	0.235	5.5310	0	
9	3			5	1	0.0874	1	0.235	5.5310	0	
3	4			5	1	0.0874	1	0	5.5310	0	Implicit Coach, same as coach service
4	4			5	1	0.0874	1	0	5.5310	0	
8	4			5	1	0.0874	1	0.235	5.5310	0	
9	4			5	1	0.0874	1	0.235	5.5310	0	
3	5			5	1	0.1348	1	0	5.4730	0	Rail passenger travel (No difference in business/passenger fares)
4	5			5	1	0.1348	1	0	5.4730	0	
8	5			5	1	0.1348	1	0.235	5.4730	0	
9	5			5	1	0.1348	1	0.235	5.4730	0	
3	6			40	1	0.0777	1	0	44.6795	0	Air passenger travel - Leisure (RT/2)
4	6			40	1	0.0777	1	0	44.679	0	
8	6			40	1	0.1554	1	0.235	89.359	0	Air passenger travel - Business (=2*leisure fare) (RT/2)
9	6			40	1	0.1554	1	0.235	89.359	0	
3	7			0	1	0	1	0	5.625	0	Access/Egress
4	7			0	1	0	1	0	5.625	0	These 2 fields should be in UTF[7] but no parameter to do so.
8	7			0	1	0	1	0.0783	7.05	0	30 minute average wait time assumed
9	7			0	1	0	1	0.0783	7.05	0	
5	8			75	1	0.1	1	0	0	0	Medium Truck (\$0.10/mile + \$20.50 terminal transfer costs in UTN[1]), min local cost \$75 per Pk
6	8			75	1	0.1	1	0	0	0	
7	8			75	1	0.1	1	0	0	0	
10	8			75	1	0.1	1	0	0	0	
11	8			75	1	0.1	1	0	0	0	
5	12			75	1	0.1	1	0	0	0	
6	12			75	1	0.1	1	0	0	0	
7	12			75	1	0.1	1	0	0	0	
10	12			75	1	0.1	1	0	0	0	
11	12			75	1	0.1	1	0	0	0	
5	9			75	1	0.08	1.25	0	0	0	Heavy Truck (\$0.08/mile + \$20.50 terminal transfer costs in UTN[1]*1.25), min local cost \$75 per Pk
6	9			75	1	0.08	1.25	0	0	0	
10	9			75	1	0.08	1.25	0	0	0	
11	9			75	1	0.08	1.25	0	0	0	
5	13			75	1	0.08	1.25	0	0	0	
6	13			75	1	0.08	1.25	0	0	0	
10	13			75	1	0.08	1.25	0	0	0	
11	13			75	1	0.08	1.25	0	0	0	
5	10			0	1	0.03	1	0	0	0	Rail Freight (\$0.03/mile + \$37.50 terminal transfer costs in UTN[1])
6	10			0	1	0.03	1	0	0	0	
5	14			0	1	0.03	1	0	0	0	
6	14			0	1	0.03	1	0	0	0	
6	11			0	1	3.00	1	0	0	0	Air Freight (\$3.00/mile + \$70.00 terminal transfer costs in UTN[1])
7	11			0	1	3.00	1	0	0	0	
6	15			0	1	3.00	1	0	0	0	
7	15			0	1	3.00	1	0	0	0	